

## BOOK NOTICE

ROBERT W. ALLARD. 1999. *Principles of Plant Breeding*. Second Edition. (ISBN 0-471-02309-4, hbk.). John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158 (212-850-6336). \$69.95. 254 pp.

From the Introduction: "In broadest terms, this second edition of *Principles of Plant Breeding* is concerned with the two distinct components of Darwinian evolution: (1) the facts of evolution ("descent with modification") and (2) selection as the chief agent of evolutionary change. However, the narrower focus of the book is on two quite recent and specialized evolutionary events: first, the evolution of crop plants under cultivation, a process that started about 13,000 to 11,000 years ago with the cultivation and ultimate domestication of many wild plant species in various of the world; and second, the current scientific phase of plant breeding, a process that started early in the twentieth century as Darwinian and Mendelian principles became firmly established as the framework within which evolutionary changes in living organisms occur."

Contents of *Principles of Plant Breeding*: Preface. **Part I. Introductory Topics:** Darwinian Evolution, Origins of Agriculture, Evolution During Domestication, Mating Systems of Plants, Overview of Plant Breeding; **Part II. Biological Foundations of Plant Breeding:** Heredity and Environment, Genetic Consequences of Hybridization, Inheritance of Continuously Varying Characters: Biometrical Genetics, Evolution During Cultivation, Marker-Assisted Analysis of Adaptedness in Nature, Marker-Assisted Dissection of Adaptedness in Cultivation. **Part III. Modern Breeding Plans:** Reproductive Systems and Breeding Plans, Breeding Self-Pollinated Plants, Breeding Hybrid Varieties of Outcrossing Plants, Breeding Clonally Propagated Plants, Breeding Hybrid Varieties of Selfing Plants and Plants that Are Clonally Propagated in Nature, Plant Breeding for Low-Input Agriculture, Glossary, References, and Index.